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ABSTRACT

This report evaluates the Grand Rapids Public School (GRPS) experience with performance contracting. The report describes the first two years of the GRPS performance contracting experience, assesses the accomplishments of those two years, and describes the third year (1972-73) program. The author concludes that the contracts were successful and presents the reasons given by Grand Rapids personnel for labeling them successful. As a result of the findings, the Contract Learning Projects Office strongly recommended the development of a teacher support program that will couple the student needs assessment with student learning patterns to prescribe an individualized course of study for students. (JF)

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Performance Contracts - Success or Failure

Contract Learning Projects
Grand Rapids Public Schools
1970-72

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EA 005 011

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Joan M. Webster

CONTRACT LEARNING PROJECTS

GRAND RAPIDS PUBLIC SCHOOLS

1970-72

Introduction

Accountability is a core issue for American education today. It appears that the cost of schooling is increasing at a rate far exceeding communities ability to pay for it. It also appears that student achievement, particularly in urban areas, is not increasing accordingly. Perhaps the combination of the economic effects of higher tax burdens, rampant inflation and poor student achievement precipitated a rather adamant demand by the public that they "want their money's worth". This demand was called accountability. This demand for accountability became a useful concept to revitalize the public's faith in public school education.

Traditionally, public school education was measured by disclosing such inputs as teachers' salaries, class size or the cost of maintaining students in school. This "use of resources" measure as an evaluation of a schools' performance was no longer accepted by the citizenry. Their accountability cry was one of holding schools responsible for results in terms of student learning rather than solely in the use of resources.

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National History of Performance Contracting

The concept of educational accountability became concerned basically with techniques to guarantee a certain level of student performance relative to stated objectives and goals with an accompanying efficient use of resources. This concept suggested that schools develop new educational approaches.

One new approach to render accountability was identified as performance contracting. Performance contracting as defined by Leon Lessinger, generally recognized as the father of performance contracting, as an "educational engineering process whereby a school contracts with private firms to remove educational deficiencies on a guaranteed performance basis or suffer penalties. Performance contracting was hailed as a method to define output not as teaching done but learning proven.

National efforts supporting this concept included fundings by Title I, III, VII, VIII and the Office of Economic Opportunity. National leaders perceived performance contracting not only as a generalized accountability model but as a model which specifically included all or some of the following.

1) A cost-effective management system
2) An encouragement for internal reform
3) A method for evaluating curriculum packages and materials

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4) A method of individualizing student instruction

5) A means of developing a management technique which included systems approaches, PPBS and cost accounting and other management information systems

6) Management by Objectives

7) Needs assessment designs

8) Formative and summative evaluation

9) Cost/benefit analysis

10) Development of performance (behavioral) objectives and criterion referenced testing to determine their attainment

State History of Performance Contracting

Governor William Milliken supported the initial performance contracting ventures in Michigan in his State of the State message, January, 1971, when he urged state support for schools using this method experimentally. A method which he stated introduced business management methods and profit motives into the schools with the private contractor guaranteeing pupil progress as a condition of receiving payment.

Dr. John W. Porter, Michigan State School Chief, cited twenty-five major state goals in his new years address of 1971. Among these was accountability and performance contracting as a promising educational practice.

Gerald Ford, House Minority Leader, said that performance contracting points toward exactly what we need from our schools - performance, results.

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Grand Rapids Public School History of Performance Contracting

Local school district personnel viewed the performance contracting concept as one method of bringing about accountability by changing the educational strategies of the instructional program. Reviewing the system wide student spring test results, school personnel recognized that a majority of the school population was not achieving at acceptable grade level standards. The decision was made to alter the delivery system (instructional design) to one that individualized the curriculum through the systematic diagnosis of student needs and deficiencies and prescribing of remedial and/or developmental materials using frequent progress checks as an evaluation tool and recycling plan. School people also felt that educational priorities should be set in the areas of reading and mathematics to insure that graduating students evidencing competencies in these areas could secure and hold a job.

The performance contracting or contract learning projects as the concept implementation was called in Grand Rapids, was initially designed as a three step cycle which included guaranteed performance contracting, fixed price/consultant contracting and turnkey operations. Briefly defined, guaranteed performance contracting was an agreement between a technological ferm and the school system to produce specified results (student grade gains) by a certain date (school year end) using acceptable methods (curriculum) for a set fee (price per unit of gain). The fixed price contract contained all the elements of the

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previously defined contract with the exception of the contractors payment contingent upon student success. The turnkey concept was theoretically defined to mean that schools districts evidencing the ability and sophistication to carry on the contractors program and could purchase the program design and manage it themselves.

Year I (1970-71)

The GRPS entered in three performance contracts with educational technology firms. Guaranteed performance contracts were written with Alpha Learning Systems (now Alpha II), Westinghouse Learning Corporation (now Learning Unlimited) and Combined Motivation and Educational Systems (CMES). All contracts were in the subject matter areas of reading and mathematics.

Contractors were expected to increase student gains in reading and mathematics by one or more years as measured by a nationally normed, commercially available standarized achievement test. The contractor's minimum guaranteed fee was increased on the basis of student grade gains, e.g., a grade gain of 1.00 to 1.24 would accure $75 for each student per subject, and payment increased incrementally with student-gain increases through a gain of 4.00 and above $150.00.

Alpha Learning Systems specialized in educational classroom management services and was involved in the Office of Economic Onportunity's Remedial Performance Incentive Project. Alpha based its performance guarantee on the premise that regular school teachers can teach just as well as outside representatives of hardware-oriented private industry if they receive the

training and tools of innovative techniques. Alpha used commercially available curriculum materials, and students worked individually at their own pace on programs prescirbed for them on the basis of diagnostic test results by Alpha personnel and teachers. Students worked on brief intensive units and were tested at the completion of each unit. Students were given immediate tangible feedback. If performance was inadequate the teacher provided individual aid. Students doing well on a particular unit were rewarded with token money called Supplemental Knowledge Incentive Notes (SKINS). Accumulated SKINS could be used to rent games, toys, record player and records, are materials, and other amusements in a "free" or "reinforcing events room". The Alpha system worked closely with the teachers and a floating representative of Alpha was available to instruct them in the use of the program and to work on problems with teachers. Programs were operational at West Middle, Hall and Alexander Schools.

Westinghouse Learning Corporation (WLC) operated comprehensive learning environments called Learning Centers which provided an independent and self-managed learning experience for students in each participating school. The goal of the WLC's program was to aid students in developing mature approaches to education and a sense of familiarity with the school system so that each student could better control his own educational development.

WLC tailored curriculum components to the needs of each student through the use of diagnostic testing and individual prescription.

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WLC used commercially available instruction materials such as programmed texts and self-instruction workbooks supplemented by WLC-developed pre-reading materials and an introductory program in modern math. WLC used a point system to reward effective learning behavior as well as appropriate classroom behavior. Initial centers were operational at Franklin and Lexington Schools. Two centers were opened at Straight and Sibley Schools during the semester break.

The Combined Motivational Education System (CMES) used a motivation-centered instructional program developed for grades 6-9. The CMES program provided a six-phase achievement and motivation curriculum designed to aid in the student development of self-concept and self-actualization. The program emphasized sharing, success, strengths, values, conflict management and reinforcement. The CMES program was highly machine-oriented. Teachers prescribed individual programs for students on the basis of student need assessment. Students worked on their study programs in individual carrels using tape recorders, tapes and workbooks.

YEAR II

The Grand Rapids school district performed a subjective evaluation of the performance contracts in spring 1971. It was then decided to fund two types of contracts for 1971-72 and accordingly rename the performance contract program-Contract Learning. Both performance-based contracts and fixed-price contracts were arranged. The CMES

performance contract program was continued at South Middle School and Alpha II was awarded a performance contract to teach educable mentally retarded (EMR) students at Coldbrook School (the first performance contract effort for the EMR in the nation) and a program for middle-school students in reading and math at West Middle School. Fixed-price consultant contracts were awarded to Learning Unlimited at Franklin, Lexington, Sibley, Straight, Coit (and St. Andrews) Schools and Alpha II for the teaching of reading and math in four elementary schools of Hall, Alexander, Fountain and Kensington Schools, to the Alternative Education Students participating in a dropout prevention and social rehabilitation program at the Calvin Center, and to conduct a junior high school reading program at Burton Jr. High.

Assessment of Years I and II

An objective assessment was made of the Grand Rapids performance contract efforts by Rand Corporation for the program's funding agency, the Office of Economic Opportunity. The results were mixed: Student increases were not outstanding but the program had valuable side effects. Grand Rapids made its own assessment of its programs as well and found both successes and failures: Most Grand Rapids District personnel agree that the major value of the performance contracting experience has been the individualization of curriculum of students. The diagnosis of student's needs and the prescriptive remedial curricula appear to be meeting the needs of students. Student prescriptions representing learning modules taken from multiple

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resources have allowed teachers to break away from the single text philosophy and to consider the ways in which students learn most effectively, as well as the content they should learn. This variety of approaches as well as the blend, mix, and management of materials have constituted a seemingly successful method of individualizing the curriculum.

Another successful innovation is the introduction of paraprofessionals to the teaching team. The use of teacher aides has reduced the adult-pupil ratio, which frees the teacher to teach and the paraprofessional to assist students in locating materials, follow flow charts, operate machines, and score progress checks.

The behavior modification techniques and reinforcing events rooms were successful in motivating students with a "right now" reward. It is agreed by educators that educationally deprived students are not generally motivated to work hard during one school year in order to pass to the next grade. However, when the teacher contracts with the student by saying, "If you do "X", I will give you "Y", or "If you complete this lesson and achieve a 90% score on the progress check, I will give you ten SKINS and ten minutes time to spend it in the reinforcing events room," the students are motivated. Teachers are beginning to change from extrinsic to intrinsic rewards by fading out material reinforcement and replacing it with praise, checks, stars, etc. One teacher reported recently that a student requested to spend his recess period in the classroom completing a task because "he knew how to do it and was having fun doing numbers."

An important by-product of the performance contract effort has been the encouragement of internal reform of the school district. The most significant evidence of reform was the development in 1971-72 of the modified turnkey or fixed-price consultant contracts. This method was adapted as a result of staff efforts to evaluate the performance contract programs and is proving very successful since the teachers were able to obtain autonomy from externally imposed curricula and some budgetary control.

The Learning Center room, which provides for a teacher-manager, ample materials and supplies, and a student recordkeeping system, has proved to be a creative alternative to the regular school. This modified departmentalization system in the elementary schools is a program style that many companies are advertising for individualized programs and should be encouraged. Staff members feel that their productivity has increased and that they have benefited by their introduction to the principles and concerns of cost-effectiveness and behavioral objectives.

Grand Rapids personnel also discovered that student attendance increased and student attitudes improved during the performance contract years. The schools have been forced, under contract, to insure that student attendance is high and thus a greater effort has been made to discover why students don't attend school. Students are "turned-on", feel successful, and have an improved self-concept from participating in the contract programs.

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The Grand Rapids School District has encountered problems as well as successes. By plunging into contracts with outside companies without the benefit of an RFP stating exactly what Grand Rapids wanted and what its objectives were, district personnel found that their objectives and expectations did not always match those of the contracting companies. The District also lacked an adequate information system for teachers and contractors to continue a dialogue about problems, goals, and expectations. District personnel had problems defining lines of authority and division of responsibility between Grand Rapids schools and the three outside contractors. Teachers were not sure who the building leader was and whether they were responsible to building principals or on-site contractor personnel managing the programs. Contractors did not provide enough assistance and training for the principals to become curriculum directors of the programs and to conduct programs in the event of turnkeying. These problems were exacerbated by the lack of an information system. The commitment of the local teaching and administrative staff to the program was weakened, which lessened the probability of program success. However, these problems were remedied and the district has now begun to build an information system and is learning to tie minimum guaranteed fee payments to contractor performance in order to maintain quality control.

Other problems encountered by the Grand Rapids Schools as well as schools nationally involved in performance contracts, included the inappropriate test administration and inadequate testing conditions

used by contractors. To resolve this problem, school personnel have specified tests appropriate to the Grand Rapids population. Some original testing conditions may have been unavoidable due to the efforts of OEO and school systems to avoid replications of the Texarkana testing problems. Substitute teachers, given a minimum of training and assigned to unfamiliar groups, administered the tests. The tested children were fearful of the tests as well as anxious about the presence of clearly unmotivated teachers. Baseline testing of students is now a part of the regular district wide testing programs.

Generally, the Grand Rapids Public Schools personnel conclude that performance contracting, subjectively evaluated, appeared to increase accountability for student learning. Grand Rapids personnel feel good about what is happening to kids in their district. One former principal commenting on the Alpha program said, "These kids are coming to school everyday and staying all day! They are turned on! Last year (1969-70) they spend most of their year in my office, now I hardly see them". With turned-on kids, with improved learning and classroom behavior, local district personnel felt confident that contract learning is a viable alternative to the group-paced instructional designs generally used in the 1960's.

In addition to the aforementioned, it should be noted that Sibley School was chosen as a State Accountability Demonstration Center and that Lexington School students scored the highest in the district's State Assessment Tests.

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Task force recommendations during the school year included:

1) Elementary -

To develop and improve models of accountability for the purpose of evaluating all programs in the Grand Rapids elementary schools with emphasis on individual proficiency and basic skills.

2) Middle and Junior High-

To expand the reading program by adopting systematic approaches in teaching reading skills.

3) Secondary -

To expand the reading services to implement the Learning Center approach in at least two high schools.

and

That the Alternative Education Center be expanded to service at least 200 students and that the number of students located at any one site be carefully considered.

Year III

During (1972-73) the current school year, school district personnel negotiated additional contracts with Alpha II for Harrison Park Jr. High, with Learning Unlimited at Iroquois Middle School, revised and extended the EMR contract to be implemented at Mulick Park and Fountain Schools with emphasis on integrating handicapped students into the regular classroom based primarily upon the educational need rather than handicapping condition and extended the Burton contract to include all students. The West Middle and South Middle programs were turnkeyed. Central High School reading teachers negotiated the opportunity to "internally contract" a program design of their choice. Educational Development Laboratories' reading centers were opened at

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15.

Northeast Jr. High, Union and Ottawa High Schools.

The State Department of Michigan has committed 23 million dollars in compensatory education funds to "performance pacts" between the State Department and local school destricts under Chapter 3 of the State School Aid Act (formerly Section 31III). The GRPS has 5,368 elementary and middle school students enrolled in this accountability design.

Profile of Student Achievement Gains 1970-71

See Attached pages

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Westinghouse Learning Corporation

Grade Gain Results

No. of Students	Days Attended	Reading Grade Gain		Math Grade Gain	
		Actual	Equated	Actual	Equated
Franklin School					
42	160+	28.4	28.4	23.2	23.2
30	140-159	14.1	16.9	21.7	26.0
10	120-139	8.4	11.6	6.0	8.3
6	100-119	5.0	8.2	7.0	11.4
31	80-99	18.7	37.4	10.5	21.0
31	60-79	8.9	22.9	8.8	22.6
19	40-59	2.7	9.7	3.8	13.9
20	20-39	1.3	7.8	2.6	15.6
19	0-19	3.7	66.6	5.4	97.2
Total 208[a]		91.2	209.5	89.0	239.2
Average		0.577	1.33	0.566	1.52
Lexington School					
50	160+	33.9	33.9	33.0	33.0
43	140-159	28.7	34.4	19.6	23.5
11	120-139	8.5	11.7	5.4	7.5
3	100-119	2.5	4.1	1.9	3.1
44	80-99	34.9	69.8	25.3	50.6
26	60-79	19.4	49.9	14.7	37.8
4	40-59	3.8	13.7	3.1	11.1
4	20-39	0	0	0	0
13	0-19	0	0	0	0
Total 198[b]		131.7	217.5	103.0	166.6
Average		0.744	1.23	0.585	0.947

SOURCE: GRS Special Programs Office.

[a]208 students were assigned to the Franklin School Program. 50 reading and 51 math students were not tested for final gain results. These were not used in calculation of grade gains and average grade gain.

[b]198 students were assigned to the Lexington School Program. 21 reading and 22 math students were not tested for final gain results. These were not used in calculation of grade gains and average grade gain.

Post tests were given in June and compared with pre-tests. Adjustments were made in actual gains to get an equated grade gain i.e. if a student gained .6 in a half year his equated gain would be 1.2.

Lexington	Reading	1.2
	Math	.95
Franklin	Reading	1.3
		1.5

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17.

Alpha Learning Systems

Pre-Post Test Mean GEQ Scores

	Pretest		Posttest		Gain	
	Reading	Math	Reading	Math	R	M
Grade 1	2*	2*	2*	2*	0	0
Grade 2	1.3	1.5	1.9	2.0	.6	.5
Grade 3	2.1	2.0	2.4	2.5	.3	.5
Grade 7	3.8	4.3	4.6	4.7	.8	.4
Grade 8	4.2	4.9	6.2	5.7	2.0	.8
Grade 9	5.0	5.6	6.4	6.4	1.4	.8

* Stanine Values given for Grade Level 1

Data furnished by OEO and is based upon those students who were in attendance 150 days.

Combined Motivation and Educational Systems

Grade	Number of Students	Nonverbal Score	Reading Score	Math Score	Total Ability Score
6	303	5.2	4.2	4.3	4.7
7	251	6.1	5.2	5.2	5.5
8	220	7.2	6.3	6.3	6.7
9	253	8.2	7.3	7.3	7.5
Total	1,027				

Source: Office of Research and Testing

Reading test results: The average gain of the pupils in reading was approximately 5 months, or one half year. The largest gains were made by sixth and seventh grade pupils, who, on the average, made almost seven months gain. In terms of the performance of individual students, it is noted that over 2/3 of the students are making some gains, about 1/2 are making gains of more than 7 months, and almost 1/4 of the students have made gains of one year or more on the reading test. All of these reported gains have been made in approximately 4-1/2 months calendar time, though the actual instructional time was probably closer to 3-1/2 months due to various delays encountered at the beginning of the year.

Math test results: The gains on this interim testing in math follows somewhat the same pattern as those reported above for reading. The overall average gain for all 129 pupils is approximately 5 months. Again, the sixth and seventh grade students showed the greatest gains, averaging almost seven months.

Final results: Post tests given in June and compared with pre-tests. For purposes of discovering average gain, only students who had complete pre-post tests and were present at least 150 days were used.

Average gains were:	Reading	1.2
	Math	1.0

Profile of Student Achievement Gains 1971-72

EMR Coldbrook Project

Mean Gain for Entire School

Reading	Mathematics
.4	1.0

Medium Gain By Classroom

	Reading	Math
Room 1	1.6	1.5
Room 9	1.1	.3
" 5	1.2	1.2
" 4	.7	.3
" 11	.6	.2
" 7	1.0	.3
" 2	.7	.3
" 12	1.1	.4
" 6	.9	.2
" 3	1.1	1.6

School	Number of Students Enrolled	Average Gain Per Student Reading[1]	Average Gain Per Student Mathematics [1]	Average Number of Modules completed Reading	Average Number of Modules completed Mathematics
Coit	243	1.0	.3	12.4	7.3
Franklin	209	1.0	.4	12.6	7.4
Lexington	201	1.2	.7	15.8	14.5
Sibley	224	1.6	.6	15.4	12.0
Straight	159	1.2	.7	13.5	13.6
St. Andrews	128	1.5	.8	14.8	17.1
Total	1,163				

[1] The average gain in reading and mathematics for all students is based upon the Learning Unlimited criterion-referenced module tests.

The 1971-72 average gain for all enrolled students in reading and mathematics combined was .94. This can be compared to the average combined gain for 1970-71 which was .78.

Source: Learning Unlimited Records

Office of Research and Data Analysis
August 16, 1972

1971-72
WEST MIDDLE SCHOOL
Alpha II Program

Type I 7th Grade Reading

	Pre	Post	Gain
Number Tested	403	391	334*
Mean G.E.	5.29	5.93	.41
Standard Deviation	3.23	1.80	.90

* 216 gains, 102 losses, 16 no change

Analyzing the grade equivalent scores for those 216 pupils who had gains:

Mean G.E. Gain	.91
Standard Deviation	.64

Type II Selected 7th, 8th, 9th Grade Mathematics

	Pre	Post	Gain
Number Tested	262	197	172*
Mean G.E.	4.18	4.99	.80
Standard Deviation	.58	.96	.80

* 135 gains, 33 losses, 4 no change

Analyzing the grade equivalent scores for those 135 pupils who had gains:

Mean G.E. Gain	1.10
Standard Deviation	.61

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Burton Jr. High- Fixed Price Reading Contract

Office of Research and Data Analysis
August 16, 1972

1971-72
BURTON JUNIOR HIGH
7th Grade Reading - Alpha II

Pre-Test Spring, 1971 (6th grade)
Post-Test Spring, 1972 (7th grade)

Stanford Achievement, Intermediate II, Form X

Subtest 1 - Word Meaning
Subtest 2 - Paragraph Meaning

Results expressed in Grade Equivalent Scores

391 pupils (potential)

Range on Pre-Subtest 1,	334 pupils, 2.5 - 10.0	Mean 5.1	S.D. 1.5
Range on Pre-Subtest 2,	335 pupils, 2.1 - 10.4	Mean 4.8	S.D. 1.7
Range on Post-Subtest 1,	335 pupils, 2.3 - 11.5	Mean 5.8	S.D. 1.8
Range on Post-Subtest 2,	335 pupils, 2.0 - 12.3	Mean 5.7	S.D. 2.2
Gain on Subtest 1,	289 pupils	Mean .8	S.D. .9
Gain on Subtest 2,	290 pupils	Mean 1.0	S.D. 1.3

Gains on Subtest 1,	224 pupils	Range -2.7 to +4.7
No change on Subtest 1,	16 pupils	
Losses on Subtest 1,	49 pupils	
Without complete scores,	102 pupils	
	391 pupils	

Gains on Subtest 2,	219 pupils	Range -2.4 to +4.8
No change on Subtest 2,	10 pupils	
Losses on Subtest 2,	61 pupils	
Without complete scores,	101 pupils	
	391 pupils	

Office of Research and Data Analysis
August 11, 1972

Report on CMES Program, South Middle School, 1971-72

6th Grade
Reading

	Pre	Post	Gain
Number Tested	219	213	207*
Mean G.E.	4.03	4.26	.29
Standard Deviation	.99	1.10	.87

*128 gains, 71 losses, 8 no change

Mathematics

	Pre	Post	Gain
Number Tested	217	213	202*
Mean G.E.	4.37	4.52	.14
Standard Deviation	1.04	.86	.85

*110 gains, 84 losses, 8 no change

7th Grade
Reading

	Pre	Post	Gain
Number Tested	128	133	122*
Mean G.E.	3.55	5.18	1.70
Standard Deviation	.68	1.42	1.29

*110 gains, 11 losses, 1 no change

Mathematics

	Pre	Post	Gain
Number Tested	207	206	194*
Mean G.E.	4.14	5.04	.91
Standard Deviation	.65	.94	.91

*159 gains, 30 losses, 5 no change

Office of Research and Data Analysis
August 16, 1972

Report on CMES Program, South Middle School, 1971-72

6th Grade
Reading

Analyzing the grade equivalent scores for those 128 pupils who had gains:

Mean G.E. Gain	.79
Standard Deviation	.53

Mathematics

Analyzing the grade equivalent scores for those 110 pupils who had gains:

Mean G.E. Gain	.74
Standard Deviation	.51

7th Grade
Reading

Analyzing the grade equivalent scores for those 110 pupils who had gains:

Mean G.E. Gain	1.91
Standard Deviation	1.15

Mathematics

Analyzing the grade equivalent scores for those 159 pupils who had gains:

Mean G.E. Gain	1.21
Standard Deviation	.68

Alpha II - Elementary Fixed Price Contract

Mean Gain Equivalent Scores

	Total Reading		Math		Total Reading		Math		Total Reading		Math	
	Grade 1 - 2											
	1971	1972	G 1 1971	G 2 1972	G 2 1971	G 3 1972	G 2 1971	G 3 1972	G 3 1971	G 4 1972	G 3 1971	G 4 1972
Alexander	1.6	2.3	1.5	2.3	2.1	2.5	2.0	2.7	2.7	2.9	2.7	3.3
gain	.7		.8		.4		.7		.2		.6	
Fountain	1.6	2.3	1.5	2.3	2.5	2.9	2.5	3.1	2.9	3.5	3.3	4.0
gain	.7		.8		.4		.6		.6		.7	
Hall		2.0		2.1		2.5		2.9	2.5	3.1	3.3	3.6
gain									.6		.3	
Kensington			1.5	2.4	1.5	2.6	2.4	2.7	2.5	3.2	3.5	3.7
gain	.9		1.1		.3		.7		.2		.2	
District Wide Average	.7		1.0		.8		1.1		.5		.7	

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Alpha II

Mean Gain Equivalent Records

	Grade Level 4		Grade Level 5		Grade Level 6	
Totals:	Reading	Math	Reading	Math	Reading	Math
Alexander	2.9	3.3	3.8	3.6	4.5	4.3
Fountain	3.5	4.0	4.3	4.2	5.8	5.5
Hall	3.1	3.6	4.1	4.3	4.5	4.8
Kensington	3.4	3.7	4.3	4.0	5.0	4.9
District Summary	3.7	4.2	5.0	5.1	5.8	5.9

Dissemination of Information

Rand Study - Volume 1 and 6

Movie: Performance Contracting - The Grand Rapids Experience

Indiana University Audio-Visual Center

Miscellaneous Publications (attached samples)

Summary of Learning in the Grand Rapids Public Schools

The question most often asked of school district personnel is: Is this technique doing the job for kids?

Most district personnel respond by saying "yes" because of the following conditions of this model.

1) The systematic management of materials coupled with a diagnostic-prescriptive method of individualizing instruction for students.
2) The variety of available materials which breaks the lock-step curriculum patterns of the previous years.
3) The contingency management/behavior modification techniques used to motivate students to improve their behavior and study habits as well as achievement scores.
4) The listing of behavioral objectives coupled with criteron-referenced tests to determine the objective achievement.
5) The improved utilization of staffs through different staffing patterns.
6) The pre-service and in-service training of staffs plus constant monitoring of staff teaching.

7) The apparent cost-effectiveness that links learning to cost on a cost per one-tenth (.1) student grade gain.
8) The built-in accountability for student achievement gains.
9) A newly developed resource cost management system which classifies costs by program. This system provides retriveable data at appropriate times necessary for sound decision making.

Recommendation

The Contract Learning Projects Office strongly recommends the development of a teacher support program which will couple the student needs assessment with student learning patterns to prescribe an individualized course of study for students. This course of study should be both remedial and developmental. We further recommend that this system be developed to utilize the computer to record the individual student actual, predicted and preferred achievement gains and to interface classroom objectives with normed referenced as well as criterion referenced tests.